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AMERICAN BEE JOURNAL

EDITORS: G. H. CALE, FRANK C. PELLETT, M. G. DADANT, J. C. DADANT

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Our Cover Picture— Mallow

Taken by Paul Hadley, of Piggott, Arkansas, in the Delta country. He must be interested in honey and pollen plants as we have bought a number of his prints. Wild mallow is visited by bees for both nectar and pollen. It is common over much of the United States although originally introduced from Europe. In late fall it may still be in flower when there is little else for the bees and so, with many other fall flowers, it serves to add to that stimulation which maintains fall brood when colonies in less favored locations may be entirely broodless.

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● NEXT MONTH

THE TREATMENT AND RENDERING OF BEESWAX ♦
Another of the Honey Getting articles by E. L. Sechrist; rather detailed coverage of an important subject * * * * * PRACTICAL PROGENY TESTING ♦ E. C. Bessonet lays out his plan, suggested in this issue, to boost breeding stock to new limits * * * * * WAYS TO MAKE INCREASE ♦ Some of the trials and experiences in this interesting process from fifteen years in the Dadant yards,

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MAURICE G. DADANT

Why Be A Beekeeper?

Surely there must be some fascination some urge which makes you and me a beekeeper. Nowadays, in the very nature of the days we live in, we perhaps give too much thought to the dollar and cents angle of whatever pursuit we are engaged in. But I believe the beekeepers, more than any other class, stick to their bees through thick and thin. More than any other class, beekeepers would be beekeepers even though the financial returns hardly warranted the effort.

Needless to say, one of those reasons is that beekeeping as an occupation, be the beekeeper large or small, gives us an opportunity to commune with nature; to see not only within the colony and apiary, but all about us, those manifestations which are so largely a part of a complete and well rounded life. Not only do we see our bees, but our eyes unconsciously turn to the birds with their music, the cloud specked skies, the growing plants, the eternal battle between insects and growing things, all of which combine to make up that wonderful earth on which we live.

Nature offers its challenge. The beekeeper is ever ready to accept that challenge, not with downcast eyes, but with a spirit of enthusiasm, knowing that victory or defeat will encompass a year of interesting and virile living; knowing full well too, that as nature may turn away from us temporarily, so will she also nod favorably some time in the future.

But there is yet another challenge that must invigorate us for the years that are to come, and that is we have as beekeepers yet only scratched the surface of the possibilities.

A man asks if he can increase his lima bean yields by keeping bees. That opens the whole field of maximum pollination. While the fruit growers have learned to want and appreciate the bees, the surface of what the bees may do for other growing fruit and seed plants is as yet unscratched. As the tendency towards mass planting grows, so will the pollination need grow until it finally

embeds itself in the consciousness of the farmer. And all the time, we beekeepers have the inward satisfaction that our bees are of inestimable value to our neighbors. That we are not only enjoying them ourselves but making a more abundant living for the other fellow.

The successful work in the disease resistance experiments, shows us what may be accomplished in bee breeding. Why may not the future give us bees suited to our every need? Longer tongues, better wintering, quicker build-up, longevity, earlier risers, cold weather fliers? Where doesn't this lead us?

Even the keen competition in honey prices makes us look into the future. Here again, obsessed as we have been with pleasant living and our main attention focused on honey production, still we cannot help but realize that it only needs a little popularization of our product to make the demand so great as to make for a competition for our product instead of competition between us for its sale.

Someone has said that one reason for low honey prices lies in the fact that beekeepers have not been badly enough hurt to give this angle of their business the attention it deserves. I wonder. Not but what we may feel the effects of it, but aren't we perhaps too busy living and too busy keeping bees to give the support we should to those agencies which might increase the per-capita demand for our product only one pound a year, thus assuring us of ready markets?

We beekeepers meet on a common ground. Our problems are generally the same. I meet a beekeeper from California today. Tomorrow it may be from Minnesota. A Montana producer comes through, going to Louisiana. We are all kin. All infused with the same pleasures and satisfactions. All interested in mastering our problems, but having a dickens of a good time while we are doing it.

Why be a beekeeper?
Why ask?



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5-lb. pkg. with queen one frame of brood	4.30
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3-lb. pkg. with queen two frames of brood	3.30
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Untested queens **75¢** each. Tested queens **\$1.50** each

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From all reports of users of these queens for 1939, an increase in production is shown. Many producers report that this stock is superior to any ever used in actual tests with other strains of bees in the same yard.

The prices quoted here below will not be cut, as we find it impossible to produce the kind of bees and queens we ship at a lower price. So if it is quality and service that you want, then place your orders at an early date, for we are limited as to the amount of this stock we can produce.

PRICES: - 2-lb. pkg. bees with select untested Queen, \$2.50. 3-lb. pkg. bees with select untested Queen, \$3.25. Queens, 85¢ 5% discount on orders of 25 to 99 packages. 10% discount on orders of over 100 packages. **No Dealers Wanted.**

T. W. BURLESON & SON



WAXAHACHIE, TEXAS

EDITORIAL

HONEYBEES AND AGRICULTURE

AT the recent Iowa beekeepers' convention, N. I. Lyle, who is president of the organization, called attention to the fact that bees are definitely a part of agriculture and should not be treated as separate. He complained that too often the men who serve the public as county agricultural agents have no understanding of the part that bees play in the farm picture. Lyle stated that every graduate of an agricultural college should have a course in beekeeping, not for the purpose of making him a beekeeper but to acquaint him with the relation of the honeybee to the pollination of flowers and the resulting effect on crops.

This is a very practical suggestion and one that every beekeeping organization should endorse. In this way the public could very quickly be brought to appreciate the value of bees in the farm program. A general understanding of the contribution which the bee makes to agriculture would do much to stimulate interest in the problems of the honey producer and tend to increase his prosperity.

Reports from Australia indicate that in some areas where the loss of bees was greatest because of the recent heat and drought, but little fruit has set this season. No bees—no fruit, and the fruit grower, and to some extent the farmer, suffer along with the honey producer.

We commend Lyle's suggestion to the thoughtful consideration of agricultural colleges.

HONEY CROP STATISTICS

ON another page our readers will be interested in a preliminary report of honey crop statistics for Canada for the year 1939, as well as comparison with previous years. These are very illuminating, showing the enormous decrease in honey crops during 1939 over 1938 and giving some idea of the marketing possibilities.

Strange that such a country as ours and its bureau of crop statistics should fail to issue for beekeepers annual crop statistics on the honey crop. While we know that the 1939 crop has been smaller than 1938, we have no definite data available and government statistical forces would be the only one which could furnish that data definitely.

One California commission firm has estimated that this year's crop is nearly twenty-five million pounds under last year. Our own estimates at the American Bee Journal would indicate a forty million shortage over last year. However, these are pretty much guesses and can really give the beekeeper little on which to base disposition of the crop and the carryover and possibilities as to prices.

After all, we get about what we ask for and unless beekeepers are sufficiently interested to demand of our government and its statistical department, yearly reports on honey production, honey prices, etc., we are likely to be without them as we have been during the past three or four years.

Under present conditions, such statistics would be highly informative for our beekeepers.

THE MIGRATORY BEEKEEPER

THE free movement of bees that has come about through the use of the automobile has brought new and complicated problems to the inspectors. No longer do bees remain in a so-called permanent location as they once did. The larger the outfit the more often they move and the greater the distance they travel.

One need only refer to the report of the inspector of a state like California to see to what extent migratory beekeeping is carried on. Krebs' report for the second quarter of 1939 shows a total of 94 beekeepers who moved bees across state lines with a total of more than 13,000 colonies moved into that state. In addition there were sixty beekeepers who took nearly 9,000 colonies

out of California.

When we add the many hundreds of apiaries moved from one locality to another within the state we find that the inspectors had a big job in checking bees which were to change locations.

This movement of bees from one place to another is responsible for the appearance of disease in many neighborhoods where it has not been known previously. Nevertheless it would be unwise to restrict the movement of bees more than is absolutely necessary to safeguard the health of the colonies.

Much discussion has failed to bring forward an entirely satisfactory solution of the problems which have come with migration. What is needed is uniform regulations which will permit the free movement of bees from one state to another—from any state to any other, once the requirements are met. As it stands now every state has its own requirement and the beekeeper is often put to endless trouble to find out what steps are necessary to avoid delay in passing through several states from a northern location to one in the South.

It is important on the one hand to check the spread of disease and it is also important on the other hand to assist the conscientious beekeeper to reach his destination with the least possible delay. It is to be hoped that a really workable plan for uniform inspection can be worked out and adopted by all the states.

♦ WAR

IT seems but a very short time since the first World War was declared in August, 1914. "The war to end war" seems to have failed in its objective and now another great conflict is in progress. From the September, 1914, issue of the Irish Beekeepers Gazette we quote an editorial written a few days after the start of war:

"The war of the nations, covering as it does an immense tract of country, fraught as it is with tremendous interests for the world, charged as it is with terrible anxieties for everyone, and with fearful sufferings, mental and physical for millions of the human race—the War of the Nations occupies the thoughts of the people to the exclusion of almost every other serious consideration.

The manner in which it touches the interests, great and small, of the people everywhere, is very remarkable. Whether it be the purchase of a half pound of sugar by some poor woman of the back streets, or the maintenance of an empire's life by some huge army, no one can forget for many minutes that the greatest of all the world's wars is in progress."

Although we in this country are a long way from the present battle front we still feel the effect. Our markets are cut off, our people are confused and full of foreboding. We are next door to Canada and already the Canadians are actively engaged in the hostilities. Word comes from that country to the effect that increased effort will be put forth for the production of foodstuffs including honey. Indications are that the final decision will not be made by armies in the field but by civilians behind the lines. Economic forces rather than military might may settle the issues.

♦

NEED OF LEGAL PROTECTION

THE beekeeping industry is much in need of an organization similar to the National Beekeepers Association of an earlier day which hired attorneys to defend its members against legal attack. Just now such an organization could render valuable service by securing legal adjustment of damages in cases of careless use of poison.

The spreading of poison by airplane has become very common and too little attention is given to the rights of those whose animals or bees are killed by the poison which drifts beyond the land occupied by the one using it. When spread in this manner the poison drifts in clouds and spreads over a wide area. Horses and cattle are often injured from feeding in adjoining pastures and bees are often killed by wholesale.

The problem of securing a trial of such a case on its merits is often beyond the resources of the one most interested. There should be a common support of such a cause to secure competent attorneys to carry cases to the highest courts and compel recognition of the rights of the beemen and others.

A mutual aid society which would come to the rescue of any member with any legal problem should receive the support of beemen generally.



A Progeny Breeding Problem

By E. C. BESSONET,
President of the Southern Conference,
Louisiana.

E. C. Bessonet, present leader of the Southern Conference.

PROGRESS in breeding bees has been slow for obvious reasons but we are gradually showing improvement. The improvement in artificial insemination, particularly the method followed by Dr. Watson, has opened the door to successful work which should change breeding quickly.

The most promising procedure

in breeding the honeybee is the use of the progeny test, a program used for several years in the work with resistant bees. The same method will help materially in producing a strain that will be superior in honey gathering.

I have been interested in the progeny test for increased honey production for a number of years and consistent application of it has resulted in progress. The chance a breeder has to make progress, of course, is small under any circumstances as it is difficult to carry out the program with the facilities the average breeder possesses.

The understanding of the Mendel law of heredity, the application of genetics to bee breeding, the roll of

the gene in the rise of characters are, of course, complicated factors of practical genetics, a partial understanding of which is necessary for intelligence in selection and progeny testing.

We do not yet know with satisfaction why a colony or the progeny from a particular queen is better than others. So to facilitate the approach to a program of breeding, we resort to the performance of progeny from the best breeders available. The final decision, after all, must rest with performance.

Inbreeding

Usually, the use of only one or two breeding queens causes serious deterioration after several years. It



Bessonet and sons all are beekeepers—Left to right, E. C. Bessonet, sons Kenneth B., Calvin, and William.

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results in inbreeding and weakens the strain to the point where low production prevails and the avenue is open for increased disease.

Cross Breeding

Cross breeding offers the possibility of blending two strains with the same color markings and does not put the breeder's ability to any severe test. However, when we attempt to cross Caucasians with Italians, we have two vastly different kinds of bees that produce a mixed or heterozygous strain and the task of reconciling the color pattern from such crosses is an undertaking limited to breeders with a technical knowledge of genetics.

Genetics teaches that hybrid crosses in the first generation strengthen the strain, but that in the second generation the result may be negative. There are exceptions, and often hybrid crosses give exceptionally good results.

Line Breeding

Line breeding is preferable to either inbreeding or cross breeding since it results in a uniform or homozygous strain and the breeder who sells bees is literally forced to produce homozygous strains to meet the public demand.

A uniform color pattern is a necessity. It is unfortunate since more progress could be made by disregarding color and considering primarily production and disease factors. The statement should not be misunderstood because we should be able

to improve the bees by working with a homozygous strain. Possible delay which results from the attempt to seek desirable characters, after the color pattern is secured, is a serious drawback. I think a comprehensive program followed, with a homozygous strain, crossed with another similar one, to develop selective characteristics is a practical and effective procedure.

Mutation

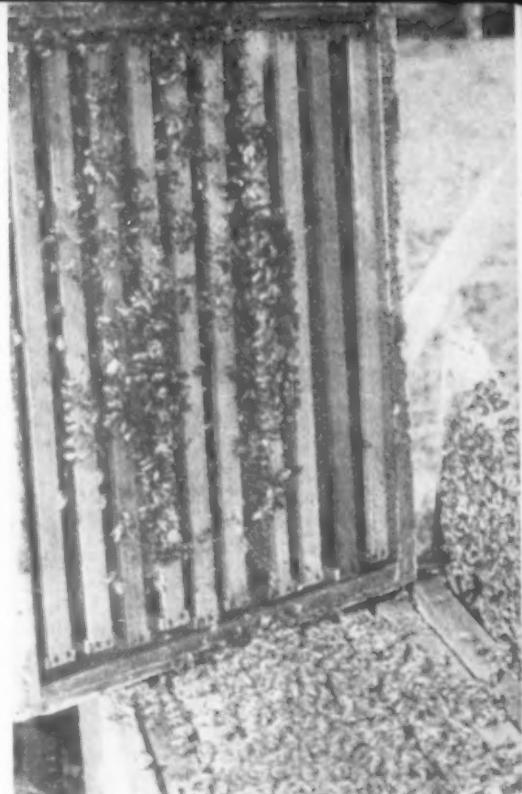
Mutation is an unusual development of characters which suddenly occurs in plants, and animals. They have inspired breeders and every effort is made to recognize the development of mutants. They breed true to type and are welcome.

Environment

The part that environment plays in the honeybee has never been taken seriously. We will in the future, I am sure, place more emphasis on it. There may be a definite relation, for instance between supersEDURE and environment.

Caucasians come from a cold, mountainous country where they have developed definite habits to protect themselves. When they are kept in a warm climate, they are restless and swarm easily, and the habits of their mountain home persist in excessive propolization and heavy brood nest storage.

On the other hand, bees from subtropical climates, store little or no honey in their brood combs and use little propolis. They winter poorly in the North. It is easy to see then



From such colonies come the stock that heads the honey producers. It's Doctor Miller's old advice—"Breed from the best."

that some connection may exist between supersEDURE and environment.

Our future breeding will be based on the kind of environment in which
(Please turn to page 81)



Apiary of Bessonot and Sons, in Louisiana.



The Breeders' Opportunity

By G. H. CALE,

Illinois.

HOW many of us are there who have lived through the periods of beekeeping characterized by the two generations of men now mingling, one the graduate from the days of the horse and wagon, the other the beginner in the days of the automobile and the hard road?

The two kinds of beekeeping were utterly different. One required the husbanding of all colonies of bees; the sacrifice to increase, each year, of colonies which had to be set aside to fill up, through the season, equipment the previous season's vicissitudes had emptied of bees. The loss of a single colony was serious.

The distance to outyards over the roads of early days, the slowness of trips by horse and wagon, the difficulty of hauling large loads, made beekeeping with several hundred colonies an arduous task; and there were few people who owned at one time more than three hundred or four hundred colonies.

Now the numbers of those who own a thousand or more colonies are increasing every year. Yards may be fifty miles apart, automobiles in a short time carry varying numbers of men to apiaries of one hundred to two hundred colonies where seasonal work programs are quickly done in short periods.

Honey by the carload finds its way into central extracting plants where it is handled and processed as any other food, through a factory system. The net result is a warfare between two classes of beekeepers for the available market. The in-between beekeeper suffers the most. The small beekeeper who produces honey as a sideline and the large beekeeper who produces in immense quantities are the only two able to capitalize on the venture.

Because of this situation it becomes more and more apparent that the future of the package bee rests on quality; not on price. Northern beekeepers will continue to buy packages to produce honey if the price of the package is given less consideration and the honey producing power of the package be given major attention. Beekeepers in the North are willing to pay what it takes to get bees that will produce the largest possible crops and after shopping around and learning the lesson

which inevitably results from price buying, they will, in the end, choose those breeders who are able to serve them quickly, surely, and safely, with packages that make the largest crop.

Closer cooperation between the breeder and the northern beekeeper is essential. Many breeders sense this. They go north themselves to produce honey, to become familiar personally with problems that face the northern beekeeper.

On the other hand, many northern honey producers find their way each year into the South to produce bees for themselves because they think they can thus secure bees which will do better. They are gradually, one by one, giving up the idea that they can produce packages of quality at any less cost than the breeders themselves. Many have tried and many have failed in this attempt.

There is always a surprise in buying packages from various shippers to note the difference in behavior and results in honey production, in temper, and in all those qualities which the producer demands of the bees he operates. Few shippers measure up to all the qualifications which an exacting producer lays down for the bees he uses.

During the days of the marketing agreement, when packages were all the same price northern beekeepers for the most part stopped shopping around. They found out the differences between packages from various sources and began to shift their business into the hands of those whom they thought were the best qualified to serve their needs. Thus the trade agreement on the part of some shippers was considered a hardship; on the part of others a great blessing. Many complained because their business left them; others rejoiced because their business increased. The reason was obvious in both cases.

Now that the trade agreement is no longer effective, the danger is that breeders will go back to the old attempt to produce bees at the lowest possible price to sell in the largest possible quantities; and in the end, just as surely, to lose much of the business that now exists. Sooner or later buyers of bees, who find no claim to merit in price, will seek the replenishment of their losses either from their own efforts in the South or from their own bees, in the old fashioned way.

However, no breeder should seek to serve his selfish interests to the exclusion of other breeders. There are common problems in shipping

which belong to all and are the property of no single one. These problems must be solved by co-operation; not by exclusion. There are plenty of agencies now existing to bring about the closest kind of tie between the breeder and honey producer. There is a golden opportunity to build up a business a hundred times better than any that has previously existed.

A few breeders sense the need. They are attempting breeding programs. They are cooperating with northern beekeepers to improve stock; to secure stock acclimated to the region in which it is used. They are discovering that there are good qualities in various races which must be brought together in what might be called a new bee. Our immediate greatest problem is breeding since we are now at the zero mark in that respect. Practically every major animal husbandry industry has risen to high levels of stock and quality through breeding.

On his part, the northern producer is losing also a large chance if he deserts the breeder for his own efforts. If he is a large beekeeper, producing commercial honey, he is in a tight place when he tries stock improvement over any large period of effort. His program is a heavy one. When stock is most needed, he has little time to attend to breeding. If he cooperates with a breeder in any satisfactory manner, he will find he has plenty of difficulty without introducing the entire job into his seasonal management. The small beekeeper, on the other hand, has a grand opportunity for stock improvement.

However, the success so far encountered with disease resistance, which, before its initiation, was considered not only a dangerous, but probably an impossible task, stands witness to the fact that the breeder, by cooperating with the honey producer, is at the threshold of the most glorious part of his career.

Surely he must feel his responsibility. The northern beekeeper has placed the entire breeding program in his hands. There are few honey producers now who pay much attention to stock. Even the small beekeepers buy from the breeders. The home queen rearing yard as a part of annual honey production is fast disappearing.

The breeder and shipper of bees has the future of beekeeping in the palm of his hand. What will he do with it?

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The Honey Producers' Responsibility to the Breeder

By THOS. ATCHISON,

State Apiarist,

Alabama.

SINCE listening to Cale's talk at the Vicksburg meeting on "The Breeders' Opportunity," I have been thinking quite a bit concerning the problems involved in his remarks, most of which were suited to many of the shippers present at the Southern Conference. In a way, however, they were not all fair to reliable shippers in the South.

In my opinion, buyers of package bees shop around for cheap prices rather than quality. When they do that, they get what they pay for and they should not kick.

On the other hand, for several years, reliable shippers have had no trouble selling their bees and queens because they have customers who are satisfied, customers who get quality and service; and it is rare that one of them ever receives a complaint about supersEDURE of queens, or inferior quality in packages.

For several years I have noticed a great number of buyers tour the South with trucks to get junk bees here and there to carry north. Naturally, they miss a honey crop. Then they complain about the quality of package bees and queens received from the South. Many of these bees and queens are not bought from shippers but from backwoods beekeepers.

The buyer of package bees must become educated to hunt for quality rather than to shop for price. When he does most of his package problems, including supersEDURE, will disappear. The Bee Culture Laboratories at Baton Rouge and at Madison are both working on supersEDURE. Yet they do not get the cooperation from package buyers that they should get.

If we should have a package shippers' organization in the South made up of perfectly reliable men, there is a question as to whether the buyer would patronize the organization. But we do need some kind of a set-up that will guarantee the buyer service, quality and honest weight, and a shippers' accredited association should guarantee to the buyers these important things.

Such an association in the South

among the breeders, with rules and regulations to govern it, and a cash guarantee, would do much to build confidence in the honey producing regions of the North and give dignity and prestige to the service the shipper is trying to render.

From our point of view down here among the shippers, I believe that the buyers of package bees and queens are at least as responsible for supersEDURE as shippers themselves, and supersEDURE has been called one of the major problems of the package industry.

On the other hand, I do not want to place the blame entirely on the buyer. I know some shippers are careless and probably this is particularly true in price cutting. They feel they can ship anything they have because they believe the buyer is actually getting what he pays for.

Any producer however who puts his product out on the basis of cutting price back to the bottom is a menace. There is something wrong with him. It is to be expected that buyers will purchase these cheap bees and, of course, condemn the whole bee shipping industry. Yet on his part, he is just as much to blame as the shipper. **The buyer must be educated to hunt for quality and service and the shipper must be held responsible for producing both.**

In the January issue, F. B. Paddock has an interesting article on the queen breeder and package shipper's and the honey producer's responsibility in this respect. It would be interesting to know how many buyers of package bees ever think about it as Prof. Paddock indicates.

Some way should be set up to control the straightness of breeders so that misstatements will not be made in advertising and a proper service will be guaranteed to those who are interested in building up the business for both the honey producer and the breeder.

It is quite likely than an effort made by the various bee journals to investigate the shipper and to compel him to conform to certain

minimum requirements would be a very serviceable procedure. Those who spend years in building up their bee breeding and shipping business have ability and know how to improve their stock and how to give their customers better bees and queens every year they remain in business.

With such a program I believe you would see honey production increase in all the states and Canada. I hope some day to see the honey producers, the bee shippers, and the bee magazines all get together and have a better understanding of the shipping problem.

If we continue to use the method being followed today throughout the industry, it will practically kill the package shipping business because as long as we have dissatisfied customers in the North, there will be a large tendency to winter over colonies rather than to buy the bees from the South.

Some California Statistics

The first bees were brought to Los Angeles County about 1856 and \$150 was paid for the first colony. They were brought to San Bernardino County about 1860. By 1872, it was estimated that about ten tons of honey were produced in that county.

During 1938 the ten southern counties in California produced half a million dollars' worth of honey. Los Angeles led with \$113,000 and San Bernardino followed with \$105,600.

In 1874, in competition with honey from every state in the union, Dr. Sheldon, of San Bernardino, was awarded first prize at the St. Louis Fair for his honey.

Michael Kohr,
California.



Crownbeard, or Wingstem—*Actinomeris*. In fall it stimulates late brood.

From Our Honey Plant Gardens

Crownbeard or Wingstem

Among the best of the fall honey plants of the eastern states is one known to the bee-men of an earlier day as "Golden Honey Plant" but to others as crownbeard or wingstem, (*Actinomeris alternifolia*). By some botanists it is classified as *verbesina*.

It is commonly found on rich soil in woodland borders from eastern Canada and New Jersey to Iowa, Kansas and southward. It is a tall growing plant coming into bloom in late summer and a never failing attraction to the bees. It appears to be a long lived perennial which once established is rather permanent where left undisturbed.

The bright yellow flowers with irregular rays are not particularly ornamental and are seldom seen in gardens. The peculiar winged stems provide an easy means of identification.

We have a number of clumps in the apiary and along the borders of the lawn where they have been for more than thirty years. In all that time, they have never failed to swarm with bees during the period of bloom. Indications are that a rich flow could be harvested where the plants are abundant. Reports of near a hundred pounds of surplus per colony of beautiful golden honey of good quality from this source came from Kentucky. The bloom comes from July to September following the

harvesting of the crop from the clovers.

It seems probable that much honey comes from this source in localities where it is credited to other plants.

This wingstem grows so readily in suitable places that it is worthy of attention by those who have unused land on which to sow the seeds. While it is coarse in appearance, growing to a height of six or seven feet, it does not become an objectionable weed and is not likely to cause annoyance by spreading into unwanted areas.

Figwort

The figwort, (*Scrophularia marilandica*), had quite a boom among the bee-men of fifty years and more ago. A man named Chapman was responsible for its popularity and it soon became known as "Chapman's Honey Plant." Several men planted it, among them Dr. C. C. Miller. One man reported that it would yield 400 or 500 pounds of honey per acre from thrifty plants.

In the wild state it is found on rich soils in open woods from New England to South Carolina and west to Iowa and Louisiana. It will thrive in open sun also where the plants can be started under favorable conditions. The seeds are extremely small and the young plants are very slow in starting. Reports of those who planted figwort in the old days indicated that a large part of the seed started and then died when crowded by weeds or exposed to hot sun and drying winds. The young plants can be transplanted without difficulty and once well established are likely to continue to thrive for a long period.

The plant grows to a height of five or six feet and produces a large number of small pitcher shaped flowers. The blossoms are too small to make the plant of value as an ornamental, but as a bee plant, it would be hard to beat. Apparently it yields nectar very freely and it is eagerly sought by many different kinds of insects.

We have had many of the plants in our wild flower preserve for many years and have found it to be very dependable in its attraction for the bees. There are not enough of the plants to enable us to judge as to the possible yield of honey nor as to its quality, but the behavior of the bees certainly indicates that it is one of

(Turn to page 71)



Anise hyssop.

Stephen Dyer And His Association Glorify The Hobby Instinct

By RUTH HODGSON,

Wisconsin.

All the world's a stage,
And all the men and women merely players.
They have their exits and their entrances,
And one man in his time plays many parts.
(As You Like It—Shakespeare.)

STEPHEN W. DYER, superintendent of the Jersey Ice Cream Company at Lawrence, Massachusetts, is a beekeeper by avocation, producing in his leisure hours a product even sweeter than that which he produces during his working hours.

He became a beekeeper in 1922 when he bought a hive and a three pound package. He only has five colonies and yet with these he spends his evenings and holidays. He has had as many as fifteen colonies.

The apiary is in his backyard in a residential section of the city. For three years he had ten colonies in the country. Probably one reason he would rather have his bees in the city is because he can watch them whenever he has time to spare.

In 1923 he was elected secretary of the Northern Essex County Beekeepers' Association, and still continues in that office. Mr. Thomas Smith has been president of that club since it was started in April, 1922. The club meets once a month at the home of the members, twenty-five active members, all textile workers,

each with a few colonies for a hobby.

They inspect each others' bees and if a diseased colony is found, it is the club rule that it shall be burned at once. These associations are most active in Massachusetts. More associations like them in the country, headed by men like Mr. Smith, would certainly reduce foulbrood to a negligible minimum.

Mr. Dyer says the bees help them to do a better job at their work because they are a means of forgetfulness. After an hour or two with the bees, he is relaxed and happy. He attends many bee meetings in New England and values his acquaintances highly.

In seventeen years' time, Mr. Dyer's bees have averaged only about 30 pounds of surplus honey per colony per year. Some years he has taken 120 pounds from a single colony in the city. Evidently he knows how to keep his bees peaceable or neighbors long ago would have declared them a public nuisance.

He has four main reasons for keeping bees: (1) It is an absorbing hobby; (2) It provides honey for a growing family that consumes 200 pounds per year; (3) To pollinate more thoroughly nearby fruit trees; (4) To make him forget his vocation and its problems.

"I started with bees because of an

Essex County members, at left, watch a swarm come out. How many of us still do that with pleasure? At right, members go through the bees of one of their number, at a regular meeting. Together they learn.



Officers of the North Essex County Association, Massachusetts. Left to right, Vice-President Wm. Burnett; President Thomas Smith; Treasurer Ambrose Eastwood; Secretary S. W. Dyer.

interest developed in the army, following the armistice, through pamphlets I found in the army libraries. An interest that has never died down but has increased. The enlightenment of friends and relatives about bees and their behavior has brought much pleasure." He often demonstrates beekeeping to thrill his listeners.

So, with Mr. Dyer, much has been obtained from his bees, the gain cannot be figured in dollars and cents. In helping others, also he has helped himself to a fuller, happier life.

Honey Without Containers

We have sold all our honey at 80 cents per gallon, customers furnishing their own containers; or at 95 cents where we have to supply the pail. Many customers prefer half gallon fruit jars.

Last season was good here with plenty of sweet clover. However, there was no rain this fall, the driest in 100 years for winter.

J. R. Loffelmacher,
Minnesota.



Essie L. Elliott, Home Economics Director of the California Fruit Growers' Exchange, features many honey recipes.

Mrs. Elliott says that orange-honey nut bread is a delight to the Epicurean and she is right. The recipe given here is one of those rare things which one might call a perfect combination. It is in two forms, with and without nuts, both breads shown in picture. The addition of the nuts makes a difference in the texture and certainly in the taste. Some prefer one, and some the other. They are both good and should find a large place among popular honey recipes.

Mrs. Elliott also features many other honey recipes; a home-made honey syrup; butterscotch sauce made with the honey syrup; a gingerbread in cup cake form, yielding sixteen cakes; honey orange jelly, a single recipe of 5 six-ounce glasses calling for $2\frac{1}{2}$ cups of honey; an orange-banana salad; honey dressing; honey-lemon wafers and Honigkuchen. These recipes were published in an article about oranges and their use with honey under the title "The Golden Stream" in the September, 1938, issue of our contemporary, "The Frontier," published in California.

There is a story about the orange honey, apple spread. Mrs. Louis Dadant, traveling north, picked up a beautifully pictured menu on The Great Northern Railway which featured a spread made with orange, apples and ginger. In our kitchen, we have changed the recipe and show the picture here of orange-honey-apple spread (marmalade, if you wish). It has been tested and re-tested. Everybody agrees that it is a find.

Take your choice. Make either

The Orange— Graced By Honey

Oranges and honey are blood brothers, most excellent natural foods. Produced by nature, with the aid of man, they reach us full of their own goodness and nothing else. Prepared together, as they are in these recipes, they offer new delights to any lady's table.



Honey-orange bread (and honey to go with it), most excellent. On the next page, the same bread with the addition of nuts.



Orange honey apple spread, an adaptation of a recipe from the Great Northern Railroad and produced in our kitchen. We dedicate it to the California Fruit Growers' Exchange; may it prosper in their hands.

bread with honey, grace the slice with good butter and cover with orange-honey-apple spread. Then try to save the rest of the loaf if you can.

Orange Honey Nut Bread (1 loaf)

Cream together well:

2 tablespoons shortening
1 cup honey

Add:

1 well-beaten egg
1 ½ tablespoons grated orange peel

Sift together:

2 ½ cups flour, sifted before measuring

2 ½ teaspoons baking powder
½ teaspoon soda
½ teaspoon salt

Add the dry ingredients to the creamed fat and honey mixture, alternately with ¼ cup orange juice

Add

¾ cup chopped nut meats

Pour into an oiled 9 by 5-inch loaf pan. Bake at 325°F. (or 300°F. for glass loaf pan) for 70 minutes.

This same recipe made without the addition of the nuts is for the orange honey bread shown on the opposite page.

Orange Honey Apple Spread

Grated rind of one orange
Grated rind and juice of 2 lemons
3 lbs. shredded apples
1 ½ lbs. sugar
¾ cup water
3 ¼ cups honey
1 teaspoon ground ginger

Bring to a boil the water and sugar. Add honey, orange, lemon and ginger. Let this simmer a few minutes (then, and only then) add the shredded apples. Allow these ingredients to simmer on back of range for 1 hour. Omit stirring and chill thoroughly before serving.

about 40 per cent of the entire Canadian crop. Of those provinces producing one million or more pounds per year, the approximate amount produced in 1939 is as follows: Ontario 11,000,000; Manitoba 5,500,000; Quebec 4,500,000; Saskatchewan 3,500,000; Alberta 2,000,000; British Columbia 1,000,000. It is significant to note that while all of the other provinces produced a lesser crop in 1939 than 1938, Saskatchewan showed a 25 per cent increase.

The shortage of crop is blamed chiefly on the dry weather during the honey producing season although unfavorable weather in the spring for building up also has some effect. The report shows that honey prices during the fall of 1939 have averaged 3 to 4 cents higher than during the same period in 1938. With only a small carryover from 1938, and a smaller crop in 1939, there has been a trend towards slightly rising prices during the fall.

A majority of Canadian honey exported goes to the United Kingdom. In fact 41 per cent of all imports into the United Kingdom were Canadian honey.

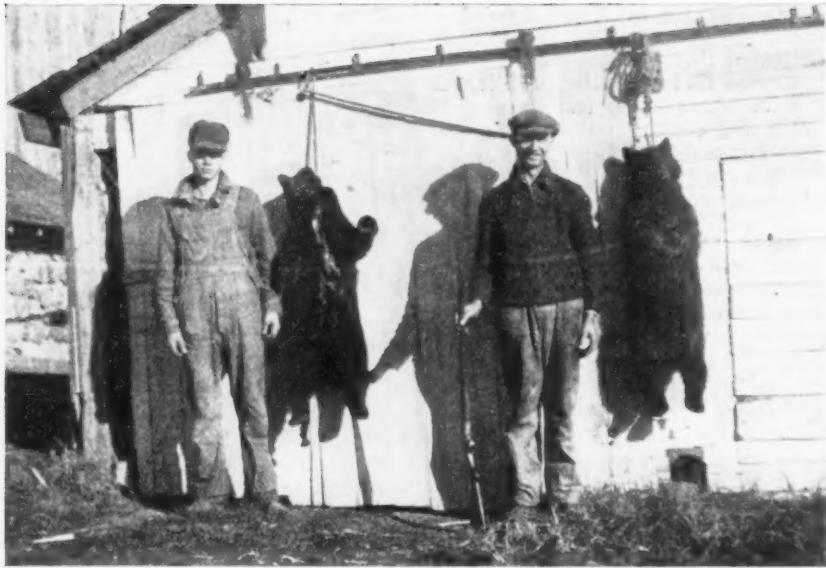
The Canadian Honey Crop

Preliminary report of the Dominion Statistician on the honey crop in Canada for 1939 has just been issued. These estimates show that there was a production of approximately 28 million pounds in 1939 as compared to nearly 38 million pounds in 1938 or a decrease of almost 10 million pounds—26.2 per cent.

Ontario is still the big honey producer of the provinces producing

We suppose that Mrs. Elliott is responsible for this delightful layout of nuts, oranges, orange-honey nut bread, (and she does include honey).





TRUE BEAR STORIES

WE should apologize to Joaquin Miller who wrote a book with this title—"True Bear Stories." Fine reading. Often stories of bears in bee yards find their way into print. These pictures indicate that the ravages of bears are serious in many parts of the country. Each of those who sent in a picture has something to say about it.

"These honey stealers were caught in the act of tipping over a hive, some with three supers of honey," says Fred Pruim, of Wisconsin, of the two bears in the picture at the top of page 64.—The lower right-hand picture on page 64 is of the apiary of Joe Marty, Silverton, Oregon, in real bear country. He says, "The bear you see at the upper left

Top picture—Fred Pruim's two bears. Bottom group—upper left, Marty's brown bear in the cooler. Upper right, bear hunting party in Georgia. Lower left Knutson with bruin in neck chains. Lower right, Marty's Oregon yard in woods where bears abound.



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of the group [at the bottom of page 64] was very nice. He knocked over a hive, set the super to one side, took out the combs of honey, ate them one at a time, and, when through, went away without further mischief. He was careful not to hurt the combs and only in a few instances did he even break the bottom bars. His favorite time seemed to be early in the evening on bright clear nights. This picture shows him in the cooler, a brown bear. Also note the trap by the fence [in the lower left picture of the group at the bottom of page 65,] over which he carefully stepped when entering the yard.

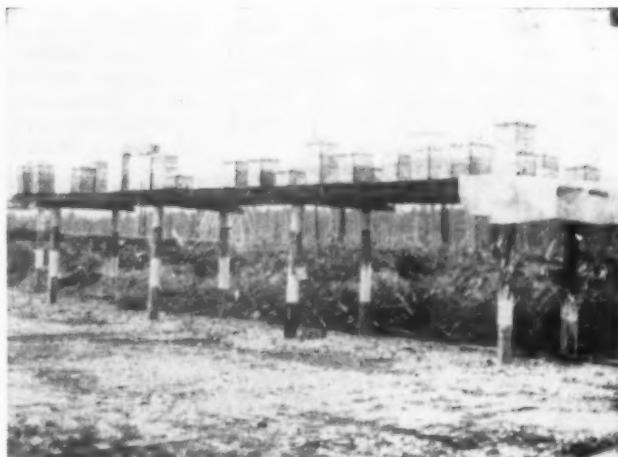
C. H. Huey, of Georgia, sends in the picture at the upper right of the group at the bottom of page 64 and the upper left in the group at the bottom of page 65, and says: "In the Okefenokee Swamp, the bears are a menace. Within an area of 700 square miles are 21 principal islands, many trees, including gum, pine, oak, cypress, bays, magnolia; the water teeming with fish—trout, bass, catfish, and over all the majestic eagle. There are many bee yards around and on the edge of the swamp, totaling hundreds of colonies. News of a bear spreads by grapevine and a big party gathers. The first



picture shows one at the home of Mr. Kitchen and the other, Mr. Bruin with a bullet in his brain. Most of the beekeepers around the swamp have a hide or two to show."

Robert Knutson, of Ladysmith, Wisconsin, hung his bear up by a
(Please turn to page 71)

Top of page, North Carolina hunters bag eight. Top left of bottom group, the Georgia crowd end bruin with a bullet in his head. Top right, Knutson's bear tipped over seven hives, with an average of 200 pounds each. Bottom left, Marty's bear stepped carefully over the bear trap. Bottom right, high above the ground, Fenderson's hives in Washington are safe from bears.



This and That • From Here and There

More Economics

With reference to the article by E. L. Sechrist in November, we call attention to probable errors in figures in the statement of mileage, 125,000 miles given in the center column, particularly. Sechrist says the work of collecting data from beekeepers began in 1933 and ended in April, 1934, probably five or six months' time, about 125 to 150 days' work, making the average daily mileage from 800 to 1000 miles, and with only 250 beekeepers visited, so probably the error is in adding an extra cipher and the mileage should be 12,500 miles, a travel of 80 to 100 miles a day with about 50 miles between stops. About right, we think.

A. G. Gill,
Chicago.

[Right, Mr. Gill. Our error, no doubt. Thank you.—Editor.]

News From Australia

Season 1939-1940 is likely to be one of the best for some years following period of drought and bush fires early in 1939. Those who have bees are in for a good season.

The cape-weed growth is the best for years, bees are building up rapidly. The apple, peach, pear, and apricot trees blossomed well, also cherries, but the scarcity of bees is causing some alarm. Orchardists report very few trees likely to yield a payable crop, and the fruit crop generally is bound to be very light.

A local cherry grower told me on the 8th inst. that last year his crop of cherries brought him in £. 160; this year he is not likely to pick more than 6 cases. Many orchardists have not seen one bee this year; other report odd bees; swarms are very rare. Some growers blame the wet winter, others say it is owing to the scarcity of bees for pollinating.

A. D. Page,
Australia.

War Prices

Higher prices for honey may develop if the war continues for any length of time. Last year British Columbia produced a crop of 1,583,120 pounds valued at \$237,468, the largest crop ever gathered in the province.

Twenty-five years ago, in the last war, honey was in great demand as a substitute for the limited sugar rations. Some months ago in the old country in anticipation of hostilities, appeals were made to the beekeepers to increase their bees, with an appeal to others not having bees to secure some if interested. Scotland normally produces one thousand tons of honey and England four thousand tons. This year the Scottish crop has been poor, probably not more than five hundred tons. Many beekeepers killed off their bees to save the honey in the hives, because they were short of winter feed, hoping to start again in the spring with package bees. Most package bees are imported from France, however, and they may not be available from that country under war conditions.

F. H. Fullerton,
British Columbia.

Bees a Profit on the Farm

We hear much about bees and fruit and that where bees are placed in orchards for pollination, the orchardist himself realizes more from the bees than the beekeeper who owns them.

In our section in Cumberland County, Pennsylvania, our honey yield was light the past year. Where colonies were left in orchards the entire season, the honey crop was only a third as large as that produced by colonies four or five miles away from the orchards.

In Franklin County, eighteen colonies of bees situated one-half mile from a farm where there were fifteen and two-thirds bushels of red clover seed harvested from seven acres, seventeen and one-third bushels of sweet clover seed from three acres, and thirteen and one-tenth bushels of alfalfa from fourteen acres from the third cutting. At the current price of seed, value was \$539.25.

Farmers are often finicky about bees around their premises. With returns like these, we see how bees are after all a very profitable nuisance especially where seeds are to be produced. It is quite true that the importance of bees is at least as great to the farmer as it is to the orchardist.

Enos H. Hess,
Pennsylvania.

Smothering or Freezing

I have read much about bees freezing to death in winter. The report is they died with honey in the combs all around them. We often find bees dead with plenty of winter stores close by. However, I can't believe the bees die because they starve when they are unable to reach stores. When bees are wintered in the cold outdoors, they cluster close together to keep warm and they are apt to cluster so densely that in the center of the cluster they do not get sufficient air and suffocate. This causes loss of heat and the remaining bees pack still closer until so many are gone, they can no longer maintain their heat and these bees are left to die also. Lack of air was what started the trouble.

Bees should be entitled to enough respect to care for them properly. They will work hard for you next year as a result. I do not put all of my bees in my cellar, but what are left out are certainly well cared for, well packed for winter and I expect no loss.

F. W. Walrath,
Iowa.

[The question of the amount of air required by bees for their bodily needs is not well determined. Experiments made in the metabolism of bees in their consumption of food and discharge of moisture and gases have indicated that they will survive with only a very small amount of air. However, possibly the lack of sufficient oxygen may have something to do with the cluster's death which occurs in long, cold winter periods. However, we are inclined to think that it is still starvation from inability to reach the stores.—Editor.]

Relation of Weather to Crop

I think the three crucial months for determining the honey crop are November, January and April. In November the sap goes down and vegetation becomes dormant. If a freeze is experienced before the sap gets down, the twigs may become frozen and may not be in good condition to bear blooms the following spring.

In 1938 we had slight frosts in November before a hard killing one struck vegetation. The same month in 1939 we had three heavy frosts before the killing one on the 27th, so I think the first hurdle has been successfully passed.

In 1938 I had some young fig bushes in my yard killed down to the roots. They came up in the spring

and this fall were not damaged at all.

Sometimes in January it gets warm and vegetation starts too much for its own good. I have known huckleberries to bloom the latter part of January. In 1920, January and May swapped places and there was no honey crop.

If we have a cold January, the second crop stage will be passed successfully. It is normal for maple, huckleberries, yellow jasmine and a few other plants to bloom in February and March. I hope for a good crop in 1940.

F. L. Huggins,
North Carolina.

[There is much in what Mr. Huggins says and maybe he has the right analysis. It is worth thinking about. We know little of the effect of weather or moisture or other meteorological factors on honey production.—Editor.]

Thoughts About Marketing

No one who sells quality honey and offers a valuable service in its distribution can fail as a beekeeper. A standard product and a steady supply are a necessity.

The trouble with honey is that there is not enough of it produced to compel orderly markets. There is no grade, no standard, no consistency. Honey itself must be clean enough to satisfy any market and it must be in good containers which themselves are clean. It must be graced with a decent label.

Most beekeepers know little about marketing. They blame the packers for all their ills. The truth is the packer in many instances has to go down to the individual beekeeper's price offer in order to survive himself.

There have been many attempts on the part of beekeepers to organize cooperative associations as a way out of their marketing ills. Since 1883 there have been about nineteen cooperatives in beekeeping, none of which are now alive.

If the time ever comes when we can get 90 per cent of the honey in the bottles of blending plants, we will have no marketing trouble.

H. F. Wilson,
Wisconsin.

Once a Beekeeper, Always a Beekeeper

At Mullens, West Virginia, in September, Bill Tunmire traded nine hives of bees for a cow, but he got stung. The lid was knocked off the hives while Tunmire was delivering the bees, the bees buzzed out and settled on the horses. The horses ran away and the wagon plunged down a 75 foot embankment. Tunmire was stung many times while try-

ing to get the wagon back on the road, but he still likes honey.

Michael Kohr,
California.

Creolin For Robbing

The last two seasons I have used a simple way to prevent robbing when taking the honey off or putting wet supers on. Saturate a rag with Creolin and rub it over any place where bees are entering or where honey has been daubed over the outside of the hives or supers. Many stubborn cases have been stopped this way. Creolin is a harmless disinfectant and may be purchased from any drug or general store for a few cents.

Ashley Strout,
Maine.

How to Use Resistant Bees

In his recent article, "Emphasis on Color," (December, page 576) Mraz was certainly asking for it when he said that some of us would be shocked by his way of handling disease. Perhaps this criticism might include the magazine that publishes his method.

It should be realized that we small, less-scientific beekeepers read the magazines edited by efficient men and that we are inclined to feel that all contributions are safe to follow.

After ten years' service as deputy inspector in New York under Mr. Gould, I feel anyone who practices or recommends the control of disease by requeening with stock that may be considered resistant, leaving the bees four months without examination, is placing himself in a fool's paradise. One of these days, it will not turn up a lucky seven.

How are we small beekeepers to obtain resistant stock when those who conduct the experiment on resistance have not produced queens in which resistance may be absolutely guaranteed? Also it looks to me as though it would be some time before that kind of stock can be bought if it is ever available. Unless its sale is controlled and kept off the open market, we may finally discover that we have a fine bunch of hybrids on our hands. Of course, nobody will overlook the chance for sales as the demand will create a market.

However, what is going to happen when we who buy the queens, introduce them and forget about disease? Some fine morning we will find the resistant queens were not resistant and dead colonies with foulbrood have been robbed out to scatter the disease far and wide, even to our neighbors and friends.

My experience convinces me there

are only two places for a colony with disease,—the scientist's laboratory or the fire.

To return to Mraz's recommendations, would it not be better where disease is found to destroy it and requeen the balance of the yard with resistant stock when it is available, stock that not only has resistance, but also a good disposition and the ability to "bring home the bacon"?

Benjamin Hosley,
New York.

[We agree Mr. Hosley. I am sure it will finally become a standard recommendation to destroy disease when found and to requeen with resistance stock. With such a procedure, practiced constantly, and with resistance maintained by control, it will in the end reduce American foulbrood to a minor factor in beekeeping practice.—Editor.]

Honey Plants in Southeast Georgia

Mexican clover yielded fairly well in southeastern Georgia this year. It was not a heavy flow, but plenty to fill up the brood nests for winter, and that is what most beekeepers go to the clover for—winter stores. The honey is almost too strong for the table, but it is all right for baking and similar purposes. Pepperbush in the swamplands yielded nicely, not a fancy honey, but useful. This year palmetto gave a good yield. Some seasons there is little.

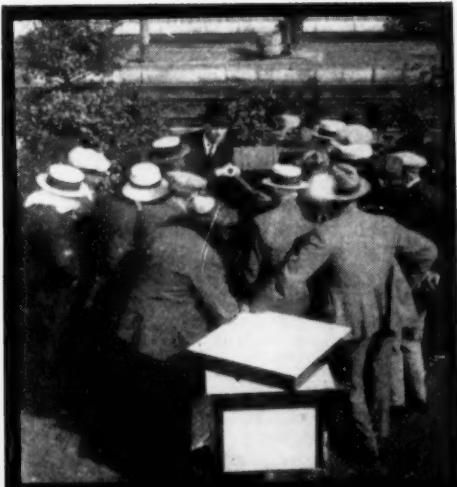
Down in the Chefenokee Swamp, beekeepers got a crop from a small bush of undetermined origin. This was the first season it has been noticed. The honey is fancy in color and the quality like gallberry. Whether it granulates quickly remains to be seen. Some colonies up to September 21 gathered as much as three supers of this fine honey, a "swamp honey" right in the midst of nature. Beekeepers in the swamp are beginning to see their possibilities and to increase their apiaries accordingly.

Chas. H. Huey,
Georgia.

To Dodge Robbing

A. K. Whidden in Southern California operates nearly 15000 colonies of bees and is a most orderly and efficient beekeeper. Mr. Whidden states that when honey is scarce and bees are inclined to rob, that the first thing they do on going to an out yard is to remove all covers as quickly as possible. This puts all in the same boat and every one has to stay at home to watch and defend their own hoard.

A. G. Woodman,
Michigan.



Modern Teaching May Make The Skep Extinct

THE lower picture here is of an old skeppist apiary at Val-de-Poix, Belgium. These apiaries are rare now. The proprietor of this one is over 93 years old.

The upper picture shows a lecture at my apiary at Ramillies-Offus, the lecturer demonstrating "Demareeing" the hives, the latter being double-walled and the bees gentle Carniolans. Those looking on are much interested. This teaching may in time completely remove the skep from its picturesque position in beekeeping.

A. Mousty,
Belgium.

So it goes—the old before the new, even for you and me. Read-

ing of heather honey production with straw skeps, with presses in which the jellylike honey is forced from combs which the extractor, with all its modernism, cannot remove; with its migrations from the balanced home location to the distant miles of purple bloom, weaves a fancy similar to that with which the South Seas call the traveler. Sorry to see skeps go; even box hives—it means less romance.

But where is the place for this romance? It breathes the same essence as flowers not in beds; tangible only when severe demands of body are filled. We are commercial now. More hives, more machines for—more. Yes, Mr. Mousty, the skep goes. Yet down in many hidden gardens it will be found for many years, thanks to souls that still remember romance.

Store Finds Honey Aids Sales Of Other Foods

MONTY'S Grocery is a neighborhood store in Santa Ana, California, which has just moved into an ultra-modern, streamlined building. The first month in the new quarters brought a business increase of twenty-five per cent.

Honey sales not only kept pace with this sharp rise, they even exceeded it. Monty's store has sold fifty per cent more honey in its new location than it ever sold before. And it's the best grade of honey, too.

The streamlined location was not the whole reason for this boost in honey sales. V. L. Motry, proprietor, installed a feature display of jars and combs which is seen by everyone who goes through the store. The display is permanent, a pyramid at one end of a grocery gondola. Right next to this attractive exhibit are the gay-colored packages of biscuit flour and other breakfast foods which naturally suggest honey.

Honey helps sell the biscuit flour and the flour helps to sell the honey. It has proved to be a good combination, and Monty's is going to feature honey from now on.

Roch Bradshaw.



Honey sells flours and breakfast foods in this streamlined store.

Honey Windows Lure Buyers Of Rare Foods



The three pictures here, loaned us by A. D. Michaels, Associate Editor of "The Progressive Grocer," were a part of a series of pictures used to illustrate an article in the September issue of that magazine, written by John E. O'Brien, of "The Progressive Grocer" editorial staff. The

top left picture shows a world map in the background, with pictures of bee yards and an educational display telling about the source of 141 varieties of honey in stock.

The picture of the skep with the sign, "Honey from here, there and everywhere," dressed up another

window in the store of Dussourd and Filsler, Inc., of New York City. The large picture at the bottom is the honey cabinet inside the store where many varieties of honey are constantly at hand for select trade.

Commenting, Mr. O'Brien says:
(Turn the page, please)



The stock case for honey inside the store. Top pictures, show window displays.

"Show us what you have for sale and we'll buy. And the way you show your goods will be the way we'll buy them." That statement, signed 'Mr. and Mrs. Consumer,' hangs in a frame above the desk of Food Merchant, John H. Filser, of New York City. And it sums up the philosophy that has guided his successful campaign to revive the 23-year-old store of Dussourd and Filser, Inc., which slipped so far and so fast during depression years that there seemed no stopping its downward course."

Mr. O'Brien points out that the Filser store decided that only stores which are different succeed. Recognizing that fact, John Filser chose spectacular and original window displays, because the store on Madison Avenue and 76th Street lies between Park and Fifth Avenues, in the heart of the finest and wealthiest residential section in the United States.

He set out to show foods the way he wanted them bought. The peak of his efforts was reached with his "beehive" window picture. The hive is five feet high, six and one-half feet across, true to scale. There is an interesting violation of the rules in that one must stoop down to see inside the illuminated interior. Mr. Filser said it was done purposely so those who stopped might be lead to concentrate and take away with them something to remember. The results have proved this to be correct.

Mr. Filser likes to sit in his car after closing the store and watch the reaction of people passing. Sometimes he sits inside the darkened store with the transom opened, listening to the comments from those who stop to look, to get valuable information.

But how much honey did these displays sell? Let Mr. Filser talk, "Up to two years ago, we sold about a jar a month of imported honey, plus the usual quantity of inexpensive domestic varieties. Now we sell over 250 jars a month of imported honeys priced from 25c and \$2.75 a jar, with the average running over a dollar. Our honey margin is 33%. We keep a stock of honey that includes 141 varieties from 22 countries. Our honey department windows have attracted wide attention and we have received columns of publicity in The New York Herald Tribune, The New Yorker, Cue, Town and Country, Telefood, and mention on housewives' programs of the big chain stores. Orders for honey come in from as far as Newport, Palm Beach and the west coast."

In addition to honey, the Filser store, specializes in turtle soup, terrapin, 44 varieties of imported sauces, goats' milk from Switzerland, an endless assortment of cheese, pates, caviar, spreads and other interesting and unusual foods.

Institute News Notes

The American Honey Institute expresses its appreciation to all those who so generously contributed towards its success during the past year. It is especially grateful to the editors of the bee journals for their contribution of space; to those who incorporated honey in their recipes; to those who gave them on the air; and to those who gave money or assisted in any way.

That the New Year may be one of felicity for you is the wish of the American Honey Institute.

The Cooperative Merchandiser which is published monthly by The National Retailer-Owned Grocers, Inc. will have an article on honey in its next issue.

On the Woman of Tomorrow program over WJZ, Radio City, New York, the Institute leaflet, Prize Winning Recipes, was described and offered to listeners who might obtain it upon request. (Within ten days 1400 requests had been received.) Other leaflets will be described and offered to listeners on future programs.

The Sealtest Food Adviser—Winter 1940—has just issued a most attractive and worth-while booklet. The cover page is in colors with waffles, little sausages and, of course, it must be honey in the dispenser. Honey Milk Toast is featured on Page 6 and you will be delighted with the pictures of the youngsters eating it—"How They Love it!"

The American Honey Institute has the cooperation of "Food Field Reporter" for Institute Items.

One of the largest milk concerns in the country has written, "I hope we can work up some type of co-operation. Certainly two such excellent, healthful products in combination ought to make this a 'land of milk and honey.'"

When are individual servings of honey in substantial paper containers to appear on the market?

The California Fruit Growers' Exchange has recently issued an exceptionally well prepared book containing 100 selected recipes. Many of these luscious recipes have honey incorporated as an ingredient. The book is a work of art and will be an addition to the American kitchen.

Bess M. Rowe, of the editorial staff of "The Farmer" magazine had an excellent article on "Make It With Honey" in the November 18 issue. A picture shows Mrs. Rood, of Mankato, Minnesota, putting the finishing touches on a honey pumpkin pie.

Comb Honey Producers

Over WJZ, Radio City, New York, the American Honey Institute's leaflet, "Flavor Harmonies with Comb Honey," was described and offered to listeners who might obtain it on request. (The first mail this morning brought 500 or more requests.) It has been necessary to use extra help the past ten days to supply requests for various leaflets.

Honey-For-Breakfast Campaign

The American Honey Institute will sponsor a Honey-for-Breakfast Campaign beginning Easter Sunday morning, March twenty-fourth. May we have your cooperation?

The Institute will have appropriate window streamers available at cost. Those who are responsible for window displays should make liberal use of the attractive streamers. Please see that all stores have a supply of honey on hand for that week. Watch the March issue of the Bee Journals for particulars.

A Strange Custom

A superstition in rural England and New England, and in parts of Europe, was that bees will fly away or will die when there is a death in the family, unless someone knocks at their hive and tells them about it. In some places, colonies are put in mourning or a bit of the funeral biscuit offered to the bees.

By Michael Kohr,
California.

True Bear Stories

(Continued from page 65)

chain to his truck on the homeward trip (lower left—lower group, page 64). "We have had bear trouble every fall since 1930. I have shot and trapped seven bears in that time. The loss to me would exceed \$1000. The picture at upper right, on page 65, is a fair representation of what they do; seven large colonies tipped over, averaging 200 pounds of honey each."

W. G. Fenderson sends the picture in the lower right of the group on page 65 showing his bees on stands to keep bears away from them. He is at Hadlock, Washington. The stand is 11 feet high, 12 feet wide, 90 feet long and will carry 50 colonies.

J. R. Carr, at Plymouth, North Carolina, sends the top picture on page 65 to show "A group of hunters and their bear catch. We expect to get more next fall. The man at the extreme right with his hand on his knee is yours truly."

From Our Honey Plant Gardens

(Continued from page 60)

the best. If figwort could be established in waste places it should add a valuable source of summer pasture. The flowering period lasts from July until October.

Anise-Hyssop or Fragrant Giant Hyssop

Here is a native plant which has been completely overlooked both by beekeepers and gardeners. Anise-Hyssop, (*Agastache anethiodora*) was once very common along the woodland borders of the prairie regions of Manitoba and Alberta southward to Illinois, Nebraska and Colorado, but has very generally disappeared with the advance of settlement of that region. In 1872 H. A. Terry wrote from Pottawattamie County, Iowa, that it produced honey in the greatest abundance over a long period and that an acre of the plant would provide forage for a hundred colonies of bees.

In 1925 I found the beekeepers north of Winnipeg to be getting a good crop of fine honey from this source. When we wanted to secure plants for our test gardens we looked in vain for a long time. We were unable to locate any source of supply anywhere within the United States and when we turned to Canada it had apparently disappeared from regions where it had still been common in 1925. After long search we were finally able to secure 14 small plants from W. J. Bougen of Valley River,

180 miles north of Winnipeg and later some seed from Duncan Chalmers of South Edmonton, Alberta. Thus we brought back to western Iowa a plant which had once been very common there, but which had long since disappeared.

Since the plants were not set in the test plot until May 25, they were late in starting to bloom. Normally it should begin to bloom in late May or early June, but these late set plants did not flower until late July. When they did open, they proved very attractive to the bees as had been expected and continued to flower until October. During that period the bees visited them freely and indications were that nectar was present in abundance. The plant is free flowering with as many as 109 flower heads on one plant. It is very ornamental and worthy of a place in the flower garden. This plant is likely to become popular with ornamental gardeners if properly advertised.

New Edition of Root's A B C and X Y Z

Root's A B C and X Y Z of Bee Culture is a familiar book. New editions have appeared with regularity since the first appeared in 1877. From modest beginnings it has grown with the years until it is an encyclopedia of beekeeping.

This edition contains 814 pages with hundreds of illustrations and substantial fabricoid binding. Much of the material has been rewritten to bring the book up to date and recent research in the field of bee culture is generously reviewed. The author, E. R. Root, has been assisted by a number of well-known authorities in the writing of special articles.

The book covers the entire field of beekeeping, equipment, management, honey plants, honey—everything with which the beekeeper has to do.

The price of the book remains as in previous editions, \$2.50 per copy. It may be had from this office or from any dealer in bee supplies.

Shipping Beeswax Refuse Economically

From time to time someone suggests a plan for home rendering of beeswax refuse. When tried, it is usually found that unless one is equipped with adequate apparatus, which costs money, the resulting amount of wax is disappointing. Too often, also the quality is not what was expected. In entirely too

many instances a fire has menaced the building in which the work was being done. Heated beeswax is tricky!

While beeswax is a by-product, as is the case in many businesses, saving the by-product goes a long way toward increasing the profits. After having sent beeswax refuse to three different rendering plants, I find the proportion of wax recovered from the refuse has been about the same from each—around forty per cent of the weight of refuse.

Formerly I tamped down the material in a barrel for shipment. My Scotch instinct rebelled at paying freight on a twenty-five pound barrel which would hold no more than an ordinary burlap sack. Since it would be exceedingly difficult, if at all possible, to do a good job at tamping old combs in a barrel, I made a tall box without top or bottom, of such size that a bag would snugly fit inside. This bag was hooked over nails around the top of the box.

The nails holding the box together were left protruding along one corner sufficiently to make their withdrawal possible. The material was tamped in the bag in the box and when it is full the protruding nails are removed from the corner, and the filled bag removed. Since freight handlers frequently drag bagged material over rough floors, it is advisable to use double bags.

The rendering plants will get more wax than the average home outfit—enough more to pay the freight and rendering cost and the beekeeper is saved a messy job.

It should be remembered that the minimum charge for a single shipment by freight is the first class rate per one hundred pounds. So, it's most economical to ship in lots of one hundred pounds or more.

Elmer G. Carr,
New Jersey.

Golden Honey Drop Cookies

(From the American Independent Baker—July 17, 1939).

2 lbs. of granulated sugar
1 1/4 lbs. of butter and shortening
8 oz. of honey
vanilla and a little rum flavor
1 1/2 pints of egg yolks (beaten)
1 pint of milk
1/2 oz. of soda
4 1/2 lbs. of cake flour
1 1/2 oz. of baking powder

Cream up the sugar and shortening. Add the honey, the beaten egg yolks and the milk. Fold in the flour. You can drop these out plain, ice with lemon or orange icing, or they make a fine cookie mixed with any kind of fruit. Drop out on greased pans and bake in a moderate oven.

Italian Bees & Queens

A large supply of young worker bees. Select laying queens fresh from our yards. Full weight—Fast service assured.

2-lb. pkg. with queen . . \$2.25
3-lb. pkg. with queen . . 2.90
Tested Queens each . . 1.75
Queens each 60

Satisfaction Guaranteed

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Discount on ten or more packages.

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Bred up to a Standard not down to a Price.

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Fifteen cents each. Choice two for twenty-five cents. Also fifty-cent editions.

CLUTTER PUBLICATIONS, Orlando, Florida.

Meetings and Events

Auxiliary Name Changed

Members of the National Auxiliary are probably wondering about the change in name which appeared in the heading of the notes recently published about that organization. At the meeting held in California, it was decided that the National Ladies Auxiliary of the American Honey Institute should be changed to the National Ladies Auxiliary of the American Honey Industry so as to include every phase of the industry.

Jean Parks Bremer,
Secretary-treasurer.

were secured. The following officers were elected: N. A. Olssen, Las Animas, president; W. A. Caldwell, Rifle, vice-president; and L. R. Rice, Greeley, secretary-treasurer. The next meeting will be held at Grand Junction, at which time delegates will be appointed to the national meeting.

L. R. Rice,
Secretary.

American Honey Institute Utilization Committee



Georgia and Florida, Joint Hosts to Federation

In November, A. J. Reamy, president of the Georgia Beekeepers Association, called a meeting at Valdosta, to finish business begun at the regular annual meeting in September. It was decided that the Georgia association accept the invitation of the Florida association to be joint hosts to the Southern States Beekeepers Federation, November, 1940, at Tampa.

It was decided to have a business meeting in Atlanta, during Georgia Honey Show Week and to ask the Governor to designate Georgia Honey Show Week as such. Members of the association are requested to pay their dues. A number of the members have not paid. Dues are fifty cents.

Mr. Reamy appointed the following program committee for the business meeting at Atlanta, and for the annual meeting at Tampa. R. B. Herrier, Valdosta; J. G. Rossman, Moultrie, C. H. Herndon, Du Pont.

C. H. Herndon,
Secretary.

Mraz on "Pleasures and Profits in Beekeeping"—WGY, February 20

Charles Mraz, apiary inspector for Vermont, will give a talk on "Pleasures and Profits in Beekeeping" over Station WGY, Schenectady, New York, February 20 at 12:35. Listen in.

Colorado

The annual meeting of the Colorado State Beekeepers Association was well attended, with all sections of the state represented. The association voted to join the American Honey Producers League. Subscription to the American Honey Institute to the amount of \$77.50

Due to the fact that H. S. Paine, Chief of the Carbohydrate Research Division, Bureau of Chemistry, in the Department of Agriculture, has found it impossible for him to accept the chairmanship of the Honey Utilization Committee on the American Honey Institute program, Mr. G. P. Walton of the Carbohydrate Research division has been made chairman in his stead.

This committee is quite an important one and inasmuch as it has already done some very fine work in finding uses for honey, we feel Mr. Walton deserves the cooperation of the honey industry.

Bronx County (New York), February 11

The next meeting of the Bronx County Beekeepers Association will be held at the home of William Molitor, 1348 Franklin Avenue, Bronx, on Sunday, February 11, at

2:30 P. M. Mr. Axtel, noted authority on bees, has been invited to address the meeting. Neighboring beekeepers and their friends are invited and welcome.

Adolph Loehr, Secretary,
429 Fairmount Avenue,
Jersey City, N. J.

Maine Meeting, March 23—Biddeford

A meeting of Maine beekeepers and those interested in beekeeping will be held at the Bee Hive, 474 Elm Street, Biddeford, Maine, on Saturday, March 23 at 7:30 p. m. to consider the possibility of forming a state beekeepers' association. If you wish further information about the meeting, address the writer.

H. C. Meriam,
Bar Mills, Maine.

This Charming Senorita Invites You to the Southern Conference in November.

Some of these costumes are over a hundred years old, having been handed down from generation to generation—but we know you boys aren't interested in the costume. For additional information come to Tampa, Florida, for next annual Conference of Southern States Beekeepers Federation, in November, 1940.

Convention Tourist Bureau,
Tampa Chamber of Commerce



Jensen's Package Bees and Queens
"MAGNOLIA STATE" STRAIN ITALIANS

At prices no higher. Quality comes first with us in rearing our queens, and filling our packages. Uniformity is what ups the per colony average of the honey crop, and tells the story of proper breeding methods. 26 years queen breeding experience with 21 years consecutive, developing and improving our present strain, which is in such universal favor everywhere they go. "You won't get stung buying Jensen's Bees." With service that brings 'em back.

1940 PRICES ON JENSEN'S BEES AND QUEENS

2-POUND PACKAGES

1-10, \$2.50 each
11-50, \$2.35 each
51-100, \$2.20 each
101-500, \$2.05 each

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1-10, \$3.25 each
11-50, \$3.10 each
51-100, \$2.95 each
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Queen-Loose Packages add 15¢ each. QUEENS, 75¢ each; \$65.00 PER HUNDRED. Dealers 15% discount from first price brackets. For booster packages deduct price of queen.

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1/2 lb. MODERNISTIC

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A COMPLETE LINE OF
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Special loose-queen packages, 2 lb.	\$2.60
3 lb.	3.30

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Illustrated booklet on request.

Write for it, it's free.

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LOOSE QUEEN PACKAGES

If you are in the market for package bees in 1940, and want the best for your money, then you owe it to yourself to try our loose queen packages. We can't satisfy our customers now with anything else, they are so easy to install and the queens ready to begin laying. Our customers want nothing but loose queen packages. 8 lb. pkg. \$3.15. 25 5% dis. 50 10% dis. 100 15% dis. 2 lb. pkg. \$2.45. 32 5% dis. 64 10% dis. 129 15% dis. Queens 75c each. 50 10% dis. 100 15% dis.

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Introductory Copy	Year's Subscription
15c American Bee Journal	\$1.00
10c Beekeepers Item	1.00
15c Gleanings in Bee Culture	1.00
25c Belgian Journal (quarterly)	1.00
10c The Sheepman	1.00
10c Sheep Breeder	1.00
10c American Farm Youth (10 nos.)	.75
15c American Pigeon Journal	1.00
15c American Rabbit Journal	1.00
10c American Turkey Journal	.50
10c Angora (Goat) Journal	1.00
20c Goat World	2.00
10c Milking Shorthorn Journal	.50
10c Hog Breeder	1.00
10c Swine World (P. C.'s only)	1.00
10c Small Stock Magazine (rabbits, cavies, etc.)	1.00
Poultry Item	.25
Leghorn World	.25
Plymouth Rock Monthly	.25
Rhode Island Red Journal	.25

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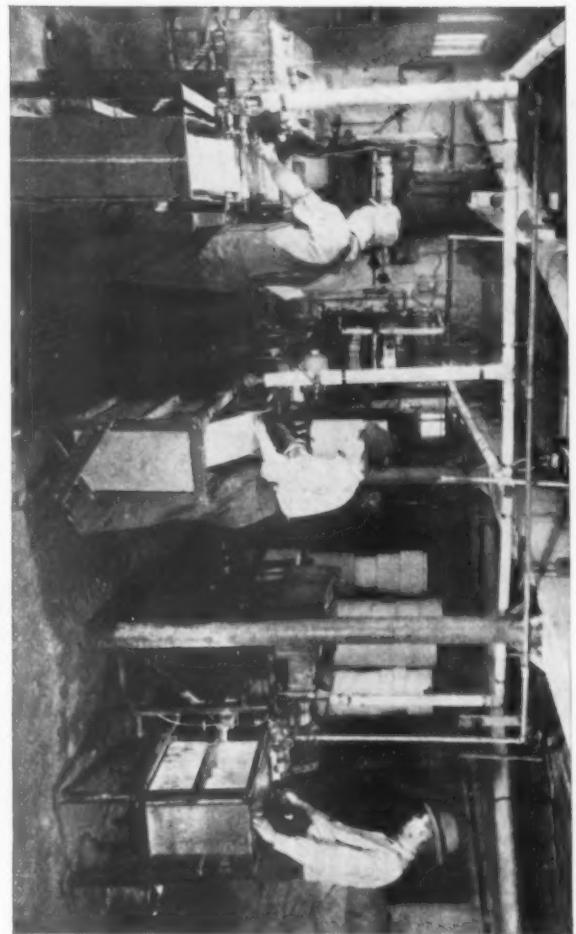
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on Friday, February 26. This will be a general beekeepers' meeting, and a cordial welcome awaits all who are interested. An evening meeting will be organized, if requested, with a dinner and bee culture motion pictures.

Speakers from out of the state will be E. S. Prevost, extension apiarist for South Carolina; A. D. Hiett, of the G. B. Lewis Company, Lynchburg, Virginia; and H. J. Cary, of the A. I. Root Company, Norfolk, Virginia. An effort is being made to secure a representative from the Bee Culture Laboratory in Washington; and E. F. Phillips, of Cornell University, who will be on a southern trip, is being persuaded.

Our local talent, like C. L. Sams, extension apiarist, and P. G. Craddock, chief apiary inspector, includes some of the best beekeeping authorities in the country and will be used freely to help make this meeting a success. Also several successful amateur and commercial honey producers will take an active part.

F. B. Meacham,
Secretary.

Virginia State Meet

John Marshall Hotel, Richmond, Virginia, housed most comfortably the forty or more Virginia beekeepers who, in spite of the heavy blanket of snow, drifted in for one of the best winter meetings in many years. In the absence of both the President and Vice-president, W. A. Caldwell of Galts Mill occupied the chair in so fitting a manner that he was elected president for the coming year.

Among those who took part in the program were H. W. Weatherford, State Extension Specialist, Vernon Hill; I. B. Wilson, Smithfield; G. T. French, State Entomologist, Richmond; H. J. Cary, Norfolk; P. G. Craddock, N. C. State Inspector, Raleigh, N. C.; Harold J. Clay, U. S. D. A., Washington, D. C.

Richmond seemed to prove a central location and was voted in as the next winter meeting place. I. B. Wilson, Smithfield, Virginia was elected the new Vice-President and H. W. Weatherford, Secretary.

A. D. Hiett,
Virginia.

Venezuelans Organize

A letter from F. J. Bolet, a Venezuela beekeeper, announces the organization of the Venezuelan Beekeepers' Society which is to further beekeeping in their country. It is the anticipation of the Society, once they are established, to publish a magazine which probably will be entitled "Apicultura Venezolana."

GARON'S PROGENY TEST 3-Banded Italian Bees

An ever increasing number of honey producers are looking forward to the day of "The Better Bee." It is surely coming.

We are now proving it with our Progeny Test Italian Bees.

Our progeny test method in connection with government experiment stations and private co-operators has marked an additional milestone in our steady progress for better bees.

Do not forget either, that we have never been surpassed for utmost efficient service. No drones, young bees, honest weight and on time delivery of your shipments.

Do not place your order before you get our price list and latest circular. Send in your names promptly.

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Write to each alphabetically listed name and address for prices, terms, etc.

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Jes Dalton, Kenner, La.
J. D. Franklin, 2815 Comus Court,
New Orleans, La.
J. L. Gaspard, Hessmer, La.
A. D. St. Romain (Famous Honey Girl Italian
Queens) Diamond, La.



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FULL WEIGHT

packages of young, vigorous Italians. They are hardier, gentler and excellent honey gatherers. Positively shipped on time. Safe arrival and satisfaction guaranteed.

2-lb. pkgs. with queen \$2.45
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Golden—Leather Colored—Caucasian
2-lb. pkg. \$2.45 3-lb. pkg. \$3.15
25% overweight.

Correspondence invited from quantity buyers.
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Any one of these would make a nice gift to the beekeeper in the family or a nice addition to any library.

We offer them postpaid at the prices below—

Alley, H.	"The Beekeepers Handybook", 8vo cl., 180 p., 1883	\$2.00
Allen, John	"The Blessed Bees" Board covers, 172 p., 1878	1.50
Armbruster, L.	"Alte Graphik & Imkerel" 4to, 100 p. Illus. 1939	.50
Baldensperger, P. J.	"Maladies des Abeilles" 4to paper, 110 p. 1928	.50
Beekeepers' Review	Vol. 20 (1907) Unbound	1.00
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Crop and Market Report

Compiled by M. G. Dadant

For our Crop and Market page, we asked reporters to answer the following questions:

1. How is honey moving retail?
2. How much of crop and carryover left on hand?
3. Are jobbing prices improving?
4. What is offered in carlots for good white extracted?
5. Condition of bees?
6. Condition of plants and moisture?

How Is Honey Moving?

In only a few instances is honey reported to be moving in satisfactory amounts. Most reports are that honey is moving from slow to fairly well, following the holiday season. It is very evident that the extremely low price quoted in many instances has had no particular advantage in moving larger amounts of honey although it may have caused extreme competition on the part of rival packers or in some rare instances on the part of individual beekeepers.

Honey on Hand

The northeastern states, including New York and Pennsylvania, are well cleaned up on honey, as well as the entire Southeast and southern states extending clear across Texas and to New Mexico. In no instances do we find reported over 25 per cent of the honey on hand and in most instances less than enough to carry through for the present late winter and early spring season. Kentucky, Alabama and perhaps Mississippi report fairly large quantities but in all other instances only moderate amounts of honey left on hand.

Are Jobbing Prices Improving?

In most cases, jobbing prices have held steady from the last report with only a few reporting a rise and a few others a slight decline. The Canadian provinces have seen the best appreciation, of some 2 cents a pound in their honey, in fact reaching the point where perhaps the price has put a "brake" on sales of honey. However, most of the crop is out of the hands of producers now and in the hands of the distributors.

Carload Prices

Carload prices range extremely. It is our honest opinion that there has perhaps been a little retrogression in carlot price offers over what it was a month ago with most of the prices offered now being in the neighborhood of 4½ cents per pound to 5 cents per pound f. o. b. shipping point. Under such conditions, many producers in a strong position are holding for at least a 5 cent price and unwilling to sell at 4½ to 4¾ cents which seems to be the prevalent offer. This price is based on intermountain shipments f. o. b. shipping point. In the Central West, there seems to be more of a prevalence of 5 cents per pound prices and as we go east price ranging up to 5½ to 6 cents per pound for what few carload offerings there are still left on hand.

Condition of Bees

Almost universally, the condition of bees is entirely satisfactory. The long moderate fall with little rains gave ample opportunity for getting bees properly packed for winter and allowed the bees to breed sufficiently to have a good strong force of young bees for the season without extreme use of stores.

However, there is no doubt as many reporters indicate that the long fall and the addition of brood rearing, together with an exceptionally large cluster of bees, is going to make a heavy inroad into honey stores before spring and there may have to be quite a lot of feeding done. At any rate, it would be our advice that beekeepers watch very carefully when early spring comes and arrange to replenish the bees which happen to be short of stores before they themselves reduce brood rearing as a consequence.

Condition of Plants

New England and in most cases the entire Atlantic seaboard and stretching across the southern states as far as east Texas, appear to be in the most advantageous position relative to honey plant condition. This is because the rainfall and snowfall has been sufficient to make up for earlier deficiencies.

Similarly, in Idaho, copious winter rains have fallen and California also reports conditions gradually reaching somewhere near normal with more moisture than a year ago and better prospects as a result. The earlier flora was badly held back but is now beginning to come forth rapidly.

As a general rule, honey plant conditions throughout the Central West and intermountain area are not over 75 per cent of normal, with beekeepers hoping that the recent heavy falls of snow will, as a consequence, save the clovers and perhaps allow a satisfactory yield from these sources.

It is true that the early fall season showed a lot of promise through ample quantities of clover. However, the long prolonged drought had a tendency to reduce this optimism and the question now remains in the minds of the beekeepers as to whether snows have come in time to save many of the clover plants. At any rate, conditions were dry until January 1 although a help has been the fact that the ground was little frozen and the heavy snows may for that reason soak in rather than run off.

Similar dry conditions prevail in the Canadian provinces except British Columbia which appears to be normal.

Summary

All in all, we would state that about average amount of honey is moving with not as large a carryover as last year at this same time, that bees are in normal condition or perhaps above normal with the exception of amount of stores and that honey plants except in the South and Southeast are below normal with some hopes of improving conditions on account of heavy snows and the possibility of a wet spring.

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• THE MARKET PLACE •

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FOR SALE—Fancy Iowa white clover extracted honey. Kalona Honey Co., Kalona, Iowa.

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Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspectors. Conditions should be stated to insure that buyer is fully informed.

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CLOVER in 60's, 7c; light amber, 6c. E. S. Miller, Valparaiso, Indiana.

GOOD CLOVER extracted 6c in sixties; light amber 5½c. H. G. Quirin, Bellevue, Ohio.

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HOWDY'S HONEY—A small lot of good buckwheat extracted. All other grades sold out. Howard Potter, Ithaca, Michigan.

200-10 lb. pails of white clover extracted honey. Interested write O. W. Betthauser, Independence, Wisconsin.

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LIGHT AMBER GOLDENROD 5½c; white clover 6½c; buckwheat, kegs only, 6c. A. J. Wilson, Hammond, N. Y.

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WANTED—Help for extracted honey production. State experience and wages wanted, with room and board furnished. Schultz Honey Farms, Ripon, Wisconsin.

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WANTED—Help for 1940 season. Edw. Klein, Gurnee, Illinois.

WANT a managerial position in large apiary. Southern and northern experience and also processing. Give your details in first letter. Also can do inspection. Box M. H. B., care American Bee Journal.

YOUNG MAN of good health and habits to work in commercial apiaries. A. L. Cogshall, Ithaca, N. Y.

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WANTED—Bees and equipment. What have you? Alf Erickson, Wyndmere, North Dakota.

WANTED—Quotation on 1000-1500 young queens April 18 to May 20. Edw. Klein, Gurnee, Illinois.

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SEEDS Russian Olive Tree, 15 cents package. Produces abundant nectar for three weeks following honey locust. Walter Bristol, Lewiston, Idaho.

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1000 slightly used brood frames. Will trade for 1940 honey. Clay T. Davis, Columbia, Missouri.

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SOUTHERN BEES, published monthly, 75c per year, sample copy first issue, July 1939, and of current issue, for asking. Write for special subscription offer. Alonzo McKay, Rt. 3, Vicksburg, Mississippi.

BOOKS**THE DADANT SYSTEM IN ITALIAN**

The "Dadant System of Beekeeping" is now published in Italian, "Il Sistema d'Apicoltura Dadant." Send orders to American Bee Journal. Price \$1.00.

A Progeny Breeding Program

(Continued from page 57)

the bees must be kept and not on the environment in which they are produced.

In the future, breeders and research men will co-ordinate their efforts with honey producers and complete information will be at hand to indicate the colonies which after production and winter tests should be sent south for breeding.

A northern experiment station in United States or Canada cooperating with the Southern station could establish a worth-while program and develop a strain to meet all northern requirements. If we could synchronize the activities of our present stations, they would lead us to the ideal bee.

Southern breeders are seriously handicapped because they have no practical means of predicting how their bees will react to changes in environment. They are sincere in their efforts to produce bees adapted to the needs of their customers, but it is obvious that the bees with which they work must be subject to northern conditions to develop factors they require.

Relationship

The interesting and complicated relationship between queen, drone and worker bee has a direct bearing on a breeding program. The most disturbing problem is the mating in the air between queens, and drones from unknown sources. Scientists can work with instrumental insemination to overcome this difficulty, but the queen breeder must resort to progeny tests.

We all know the drone eggs are unfertilized, so the mating has no immediate connection with the drone. The drone has a grandfather, but no father, and as the worker bee from the same queen has a father, so the drone is half related to the worker bee and the worker bee is half related to the drone. The drone inherits all his characters from his mother, the worker bee inherits from both father and mother. So we deal with conflicting characters.

Assuming the drone which mates with the queen has superior characters inherited by the bees, we construe that an improvement has taken place. On the other hand, should the characters of the drone be inferior, it would produce negative results in

"HISTORY OF AMERICAN BEEKEEPING."

by Frank Pellett, covers a field which has been neglected until now. Ralph Benton in the "Frontier" says: "A great work presented at a timely moment. We wish there might be some way to place this book in the hands of every beeman." Nicely printed, well illustrated, large pages. \$2.50 prepaid. American Bee Journal, Hamilton, Illinois.

the worker bees should they inherit them.

Should the queen have good characters inherited by her bees, but the drone with which she mates lacks these characters, the drones are poor stock to be used for mating. We should not judge the worth of the drones from any source without several generations of checking to discover undesirable characters. We have no way to know what characters bees will inherit from the queen and drone from the standpoint of disease resistance, honey production and related factors without a progeny test.

In the first stages of progeny testing, we will have numerous drone colonies of questionable value and because of our limited knowledge of the drones in our first check, we will find a wide variation of performance in the progeny queens. By continuous selection from the progeny showing desirable characters, we will, in due time, improve the performance of our stock.

Many breeders lack the main prerequisites to a breeding set-up because of the difficulty of establishing queen yards where undesirable drones are sufficiently eliminated to avoid chances of unfavorable mating.

Practical Progeny Testing

In the next article in March, I will give the details of a practical procedure to establish a progeny testing program for stock improvement. It is the only weapon the breeder has with which to maintain an advancing program in stock improvement. Following it with vigor and determination, is bound, in the end, to result in a stock so much superior to that which we now have that the business relationship which has been so firmly established between the breeder and honey producer will continue without interruption and with great profit to both.

New!
TIMESAVERS!!

Frame Spacer Tools.

Write for circular, give your dealer's name.

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will be the best investment you can make in 1940. "Only the best, will feather your nest."



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Quote lowest price delivered
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The kind we use in our extensive Michigan Apiaries. All Italian stock. Service guaranteed. Ask for our circular.

Three pound package with choice untested queen \$2.45; Two pound package with choice untested queen \$3.15; Choice untested Italian queen 75c; Choice tested Italian queen \$1.50. 10% discount on 50 or more. 15% discount on 500 or more.

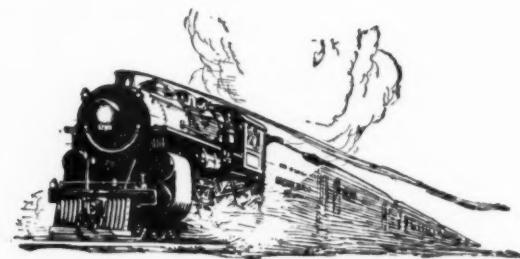
David Running Apiaries, David Running
Sumterville, Alabama Filion, Mich.



HIVE LIFTER

Save back breaking work on that big crop.
Save stirring up your producing colony.
Write for full details.

WADE H. FOSTER
Bad Axe, Mich.



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BEES AND QUEENS**

FREE, one queen with each \$10.00 cash order received in February.

GULF COAST BEE CO., Schriever, La.

EXCELLENT QUEENS

and package bees at reasonable prices.

Caucasian queens only, 75c ea.—10 or more, 65c ea.
2-lb. pkg. with queen, \$2.25 — 10 or more \$2.00 ea.
3 lb. pkg. with queen, \$2.60 — 10 or more \$2.25 ea.

Member California Bee Breeders' Ass'n.

GOLDEN WEST APIARIES, Manteca, Calif.

MERRILL'S ITALIANS

will put honey in your hives next year.

Merrill Bee Co., Bucalunna, Miss.



**An Easily
Managed
Home
For Your
Bees**

A good hive has all the room the queen needs and room for food and young. No hive but the Modified Dadant gives this room in one compact body. It produces big colonies and big crops.

Send for this sixteen page booklet telling how the Modified Dadant Hive is used.

♦
DADANT & SONS
HAMILTON, ILL.

Italian Bees and Queens

Full weight packages of young bees shipped on a frame of brood and honey with either loose or caged young queen

**2-lb. package . . . \$2.00
3-lb. package . . . \$2.50**

We guarantee safe arrival and no disease.

MAYEUX BEE FARM HAMBURG, LA.

PACKAGE BEES
MARCH AND APRIL

HARRY K. HILL, Willows, Calif.

Pettit's Package Bees Still Satisfy

Customers say they are Good Workers and Gentle; Neat Light Packages; Full Weight and No drones; Prompt Service; Satisfaction Guaranteed.

Standard prices and generous quantity discounts.

MORLEY PETTIT :: TIFTON, GEORGIA

California Bee Breeders' Association

The members of the California Bee Breeders' Association have adopted stringent rules and regulations designed to improve and to maintain a *superior quality of bees and queens* sold by its members.

Our Policy is:

- (1) To improve and standardize the bees and queens produced.
- (2) To ship only 100% disease free bees.
- (3) To assure the buyer of safe arrival, full weight packages and satisfactory dealings.

For **YOUR PROTECTION** and **SUPERIOR QUALITY** be sure and place your order with a bonafide member of this Association.

(WATCH THIS SPACE NEXT MONTH)

**FINEST ITALIAN
PACKAGE BEES AND QUEENS**

A Large Supply--Fast Service--Full Weight--Prices Right
Get Circular

HOLDER APIARIES

Citronelle, Ala.

Quality 3-Band Italian Bees and Queens

Northern production proved stock.

Due to an increase in our apiaries, we predict a greater supply of bees for this year's package business. Circumstances point towards a reasonable offer that we can make at present.

Combless Packages

How many do you need? What type package do you prefer?

St. Romain's "Honey Girl" Apiaries, Hamburg, La.

**Honey
Selling Helps**

Send for Complete Catalog

AMERICAN BEE JOURNAL

:: :: **HAMILTON, ILLINOIS**

The Postscript

The holiday season brought greetings from many friends far and near to the staff of this magazine. Speaking for all of us to all of you your generous good wishes are very much appreciated.

It appears that solicitation for magazine subscriptions is becoming very much a racket. A subscriber of ours reports that two boys came to him saying that they were working their way through college and soliciting subscriptions. He gave them a dollar for a subscription to this Journal, but later received a card crediting him a dollar on a three year subscription to another publication and demanding two dollars more. The fact that most people like to encourage young people who are trying to do something, makes it easy for crooks to take advantage of strangers in this manner.

From A. D. Page, of Micham, Victoria, Australia, comes word that the loss of bees from last year's drought is a serious matter for orchardists this season. Few trees promise to yield profitable crops. In some orchards not a single bee has been seen this season. One cherry grower who harvested a crop worth \$800 last year does not expect to gather more than six cases. Thus the loss of the bees proves as serious to the fruit grower who depended upon them for the pollination of his fruit blossoms as for the beekeeper who depended upon the sale of the honey.

A. Z. Abushady, of Alexandria, Egypt, is one of the most interesting personalities among the prominent beekeeping leaders. A physician and scientist, as well as poet and author, he devotes much attention to the interests of beekeeping. He founded the Bee World published in England, and the Apis Club, an international society of beekeepers. He is author of more than forty volumes of poetry and science and beekeepers generally little appreciate the extent of his work in other fields.

In a recent letter Abushady tells how he solved the problem of safe shipment of queens in hot countries. By soaking the cages in water overnight, so that the wood was fully saturated, the shipping of queens across the desert was a complete success, whereas otherwise it had been an assured failure.

Our American queen breeders might find it worth while to give this a trial when shipping queens during times of extreme heat in midsummer. This simple method is reported to be saving queen shipments in hot countries.

The passing of Dr. John Anderson, long a prominent figure in Scottish beekeeping, removes one of the greatest beemen. At the time of his appointment to his position in the Aberdeen College of Agriculture in 1915, the following appeared in the Irish Beekeepers' Gazette:

"About thirty years ago he awoke to the charm of bees and beekeeping. He was then, he says, both young and foolish and was regarded as a harmless idiot, who would have to be supported through life upon the superfluity of the other members of the family. His infatuation for bees, ants and sticklebacks was held to be definite proof of his lack of gumption."

We would like to get in touch with beekeepers who have found disease to be present in the sweet clover fields in their vicinity. Scientists at work on the problem of control of sweet clover root rot want to know if anyone has observed whether sweet clover diseases

are more prevalent in fields that have been pastured or clipped during the fall months of the first year of growth than in fields that have remained untouched. Sweet clover is our most important source of surplus honey and disease appears to be becoming rather widespread.

Lester B. Woolever, Yuma, Arizona, condenses the essentials of success for a beginner in a few words. He says: "Use good hives, full sheets of foundation, and leave plenty of honey for the bees." The essentials of beekeeping should be easy to understand but most beginners overlook one or the other of these requirements. The failure to leave a liberal reserve supply of honey for the bees is a very common error.

The remarkable increase in yield secured by planting hybrid corn suggests that the beekeeper might profit by a suggestion made many years ago by Frank Benton. He said that Cyprians would never be generally kept because they were so cross, but that they excel all other races in the production of honey. He proposed to mate Cyprian queens to drones of a gentle race such as Caucasian or Carniolan to get a race to combine the honey gathering qualities of the Cyprians with the gentleness of the other. He assumed that temper is likely to be inherited from the male parent thus insuring gentleness in the offspring.

Perhaps some queen breeders who will specialize in work along lines similar to the corn breeders might find a good market for queens of such a cross.

J. D. Gustin, who formerly printed honey labels in our shop here but who now is a practicing lawyer at Springfield, Missouri, sends the following lines:

To sit beside an Ozark stream, just fishin,
And smoke and think and laze and dream, just fishin,
Mid odors sweet of summer flowers
Which incense give to sunlit hours
And fleecy clouds float idly by
White mounts against a summer sky, just fishin
No king upon his jeweled throne
Knows keener thrill than this my own, just fishin.

I like the sentiment all right, but give a shady spot in the deep grass beside a beehive and that is real relaxation for me.

It appears that the first effort on the part of the government to serve the beekeepers was the importation of Italian queen bees in 1860. After that but little notice was given to the bees until 1891 when A. J. Cook was commissioned for six months to determine the value of special plantings for honey, the effect on bees of the poison used in spraying fruit trees, the value of bees in the fertilization of flowers, the introduction of an improved strain of bees, and a few other things, such as the amount of honey required to yield a pound of wax. That would seem to be rather comprehensive program for a period of six months.

Referring again to goldenrod, Carl G. Rhapstock, of Plainfield, Wisconsin, writes that he has never found the bees visiting goldenrod on the high lands in that locality but that on the marshes and along the edge of swamps it often yields. Hairy goldenrod and bushy goldenrod are the common varieties.

FRANK C. PELLETT.